

ABSTRACT

[0045] The arrangement for generating EUV radiation based on electrically triggered gas discharges with high repetition rates and high average outputs. The object of the invention, to find a novel possibility for generating EUV radiation based on a gas discharge pumped plasma which permits the generation of EUV pulse sequences with a pulse repetition frequency of greater than 5 kHz at pulse energies of at least 10 mJ/sr without having to tolerate increased electrode wear, is met according to the invention in that a plurality of source modules of identical construction, each of which generates a radiation-emitting plasma and has bundled EUV radiation, are arranged in a vacuum chamber so as to be uniformly distributed around an optical axis of the source in its entirety in order to provide successive radiation pulses at a point on the optical axis, so that a reflector device which is supported so as to be rotatable around the optical axis deflects the radiation delivered by the source modules in the direction of the optical axis successively with respect to time. A synchronization device triggers the source modules in a circularly successive manner depending upon the actual rotational position of the reflector device and adjusts a preselected pulse repetition frequency by means of the rotating speed.